



2005

# **TRANSPORTATION SAFETY PLAN**

## **STATE OF ARIZONA**

### **EFFECTIVE TRANSPORTATION STRATEGIES TO:**

SAVE LIVES  
REDUCE CRASHES  
REDUCE ECONOMIC IMPACT

2005

**ENGINEERING   EDUCATION   ENFORCEMENT   EMERGENCY RESPONSE**



## Executive Summary

The Governor of Arizona, through Executive Order 2004-18, established a Traffic Safety Advisory Council and charged the Council with bold responsibilities "to develop more effective strategies to reduce the number of lives lost, the human suffering, and the economic costs associated with motor vehicle crashes in Arizona." In fact, motor vehicle crashes cause numerous fatalities and personal injuries, as well as extensive economic costs to the State.

Transportation safety trends "nationally" have been rising in recent years, claiming nearly 43,000 lives (1,151 in Arizona) and over 3.0 million injuries in 2004. In Arizona, from 2000 to 2004, there has been an annual average of 133,651 reported traffic crashes, 74,219 injuries and 1,099 fatalities. According to National Safety Council estimates, the economic loss to Arizona due to traffic crashes was nearly \$3.3 billion in 2004.

Although Arizona's fatality rate has been slightly declining for the past several years, the rate of 2.01 fatalities per 100 million vehicle miles traveled in 2004 is still above the national average rate of 1.46. It is predicted, using the crash and traffic data trends of the past five years, Arizona's fatality rate will fall slightly by 2010 to an estimated 1.83 fatalities per 100 million vehicle miles. Because deaths and injuries due to traffic crashes are a serious public health concern and are not conducive to the high quality of life expected by Arizonans, the trend of losing over 1,000 lives every year in motor vehicle crashes is unacceptable. The human and economic costs are too great.

To counteract these trends, the Governor's Traffic Safety Advisory Council has taken aggressive steps to improve safety in Arizona by drafting a strategic statewide Transportation Safety Plan. This plan is comprehensive and includes focused emphasis areas and coordinated strategies based on the safety concept of the 4Es (Engineering, Enforcement, Education and Emergency Medical Services).

The goal of the Plan is simple - to reduce the total number of fatalities and injuries resulting from motor vehicle crashes. To achieve

this goal, broad data-driven emphasis areas have been identified. The emphasis areas are:

- Modify driver behavior
- Modify motorcyclist behavior
- Improve pedestrian and bicyclist safety
- Keep vehicles in the proper lane and minimize the effect of leaving the travel lane
- Improve intersection safety
- Improve data and information for decision making
- Continue successful safety initiatives

The Governor's Traffic Safety Advisory Council will be responsible for implementing the Plan by identifying/outlining specific initiatives (or action plan) and relying on the collective skills and interests of member agencies to accept lead responsibilities. Progress will be monitored and periodic reports will be provided to the full Council and the Governor.

Providing efficient, effective and safe transportation facilities is of vital importance. The primary "measuring stick" for safe transportation is how many lives we save. We can save lives by reducing the number and severity of motor vehicle crashes resulting in fatalities and injuries across Arizona each year.



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## Introduction

In Arizona from 2000 to 2004 there has been an annual average of 133,651 reported traffic crashes, 74,219 injuries and 1,099 fatalities. Based on National Safety Council estimates, the annual economic loss due to traffic crashes in the state was nearly \$3.3 billion\* in 2004. Deaths and injuries due to traffic crashes are a serious public health concern, and are not conducive to the high quality of life expected in this state. \* Based on 2003 Dollars

Although Arizona's fatality rate has been generally declining slightly for the last several years, the rate of 2.01 fatalities per million vehicle miles traveled in 2004 is still well above the national average rate of 1.46. In 2004, 55 percent of the fatal crashes occurred in the counties containing Arizona's two largest urban areas (Phoenix and Tucson). Figure 1 illustrates recent trends in fatalities resulting from traffic crashes.

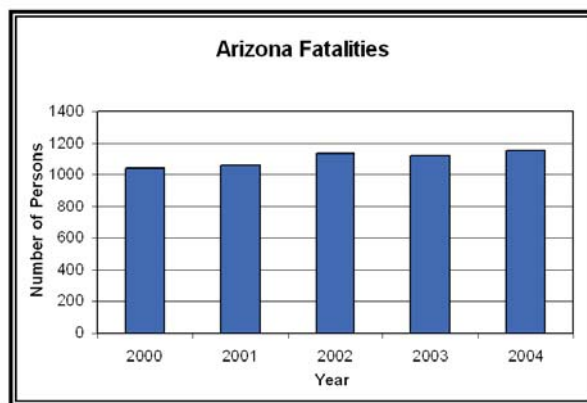
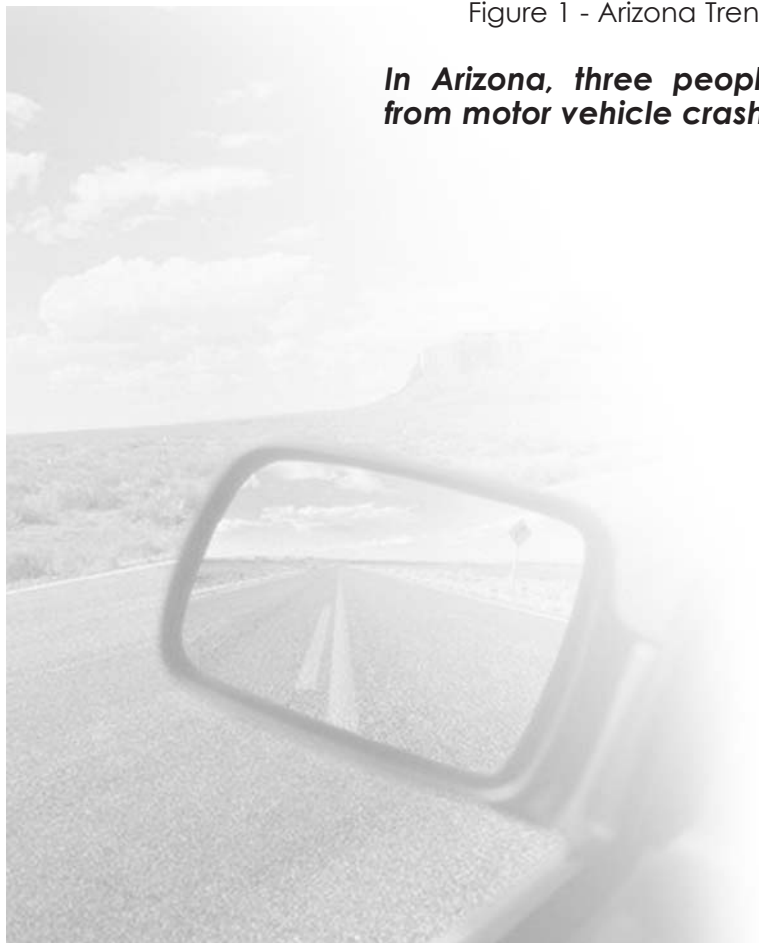


Figure 1 - Arizona Trends in Fatalities

***In Arizona, three people die every day from motor vehicle crashes.***





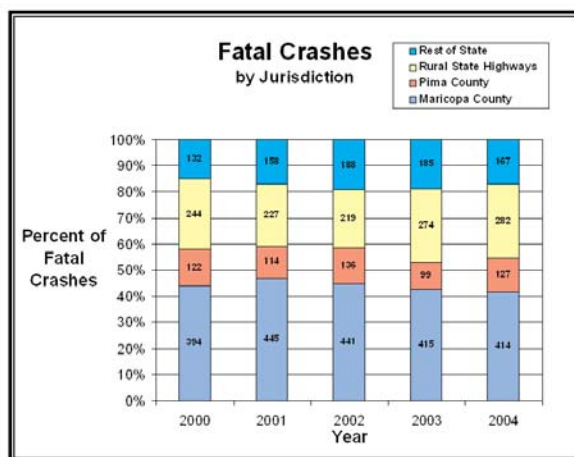


Figure 2 - Trends in Fatal Crashes by Arizona Jurisdictions

***While rural roadway-related crashes in Arizona accounted for only 19.9% of all crashes, they were responsible for 53.5% of all fatal crashes occurring in 2002.***

In 2004, 55 percent of all fatal crashes, accounting for 58 percent of all roadway fatalities in Arizona, occurred in Maricopa and Pima Counties. Another 28 percent of the fatal crashes occurred on rural state highways outside of Maricopa and Pima Counties. Additionally, 82 percent of the people injured in crashes in Arizona were injured in one of the two largest populated counties. As shown in Figure 2, by focusing on all state highways and the aforementioned counties, 83 percent of all fatal crashes would be addressed.

For the State of Arizona the Governor's Traffic Safety Advisory Council has undertaken the responsibility of developing and implementing a comprehensive, data-driven safety plan to reduce fatalities and injuries in Arizona. The Council includes representatives from the following agencies and organizations:

- AAA of Arizona
- Arizona County Sheriffs Association
- Arizona Department of Transportation (ADOT)
- Arizona Driver and Safety Education Association
- Arizona Police Chiefs Association
- Arizona Safe Kids Coalition
- Department of Public Safety (DPS)
- Federal Highway Administration (FHWA)
- Federal Motor Carrier Safety Administration (FMCSA)
- Governor's Office of Highway Safety (GOHS)

- Inter Tribal Council of Arizona (ITCA)
- Maricopa Association of Governments (MAG)
- Mothers Against Drunk Driving (MADD)
- National Highway Traffic Safety Administration (NHTSA)
- National Safety Council (NSC)
- Pima Association of Governments (PAG)
- Professional Fire Fighters of Arizona
- Students Against Destructive Decisions (SADD)

This Council is responsible for reporting directly to the Governor on their activities and progress.

## Fatality Trend Analysis

Using the past five years' recorded traffic crash and traffic volume data it has been predicted that in 2010 the expected fatalities per 100 million vehicle miles of travel (VMT), without any new safety treatments, will be 1.83 per 100 million VMT and 1.40 for the Nation. Figure 3 shows that, during last five years, the fatalities per 100 million VMT in the State have been higher than the national average. However, the trend shows that the declining rate for the State (1.6% per year) is better than the National average (0.9% per year).

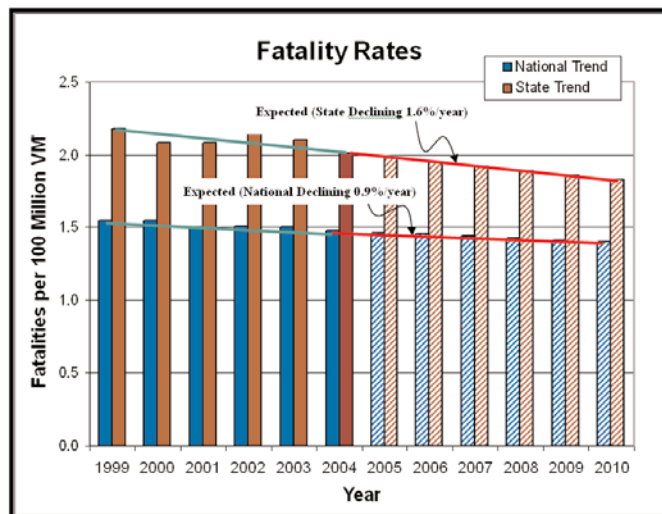


Figure 3 - Comparing Arizona and National Fatality Rates

## Enhanced Arizona Emphasis Areas

This plan focuses on a targeted group of emphasis areas. To achieve the primary goal of this plan, data-driven emphasis areas have been identified to reduce the number of fatal and serious injury crashes. For each emphasis area, comprehensive and coordinated strategies and initiatives based on the 4 E's (Engineering, Enforcement, Education, and Emergency Medical Services) will be developed and implemented.

The following comprises the key goal and emphasis areas to be implemented during the next 5 years. Implementation of the emphasis areas will be guided by a set of identified strategies and action plans, and will be monitored by the Governor's Traffic Safety Advisory Council with periodic reports to the Governor.

## Goal

The overall goal is to reduce the total number of fatalities and injuries. This will be done by focusing on the following emphasis areas:

- Keeping Vehicles in the Proper Lane and Minimizing the Effects of Leaving the Travel Lane
- Improving Intersection Safety
- Improving Pedestrian and Bicyclist Safety
- Modifying Driver Behavior
- Modifying Motorcyclist Behavior
- Improving Data and Information for Decision Making
- Continuing Successful Safety Initiatives

It is envisioned that more detailed action plans will be developed in support of emphasis area strategies. The action plans will identify roles, responsibilities, target timeframes, and expected outcomes.

Providing the most efficient and safest transportation facilities is of critical importance. The primary "measuring sticks" for safety are reductions in the number of fatalities and injuries that occur as a result of motor vehicle crashes across the state each year. The State of Arizona strives to enhance its safety program to ensure transportation facilities are as safe as possible from the initial phases of planning, design, construction, and operation throughout the usable life of the facility.

## Focused Approach and Theme Strategies

The Advisory Council understood that they would be unable to work jointly on all of the transportation safety strategies compiled through submission of their group's white papers and joint brainstorming session. Therefore, they decided to identify the top priorities of the Transportation Safety Plan. The focusing of efforts would allow the Council to pool their resources and work collaboratively on the priority theme strategies as they continue to implement their group's respective strategy.

To begin the process, staff reviewed the extensive list of strategies identified in Appendix A and compiled overlapping strategies into themed strategies. The Advisory Council members then used an electronic voting process that implemented a Nominal Group Technique (Ranking for Consensus).

In the end, the highest-ranking theme strategies became the Council's priority. A subcommittee will be formed for each priority theme strategy. The subcommittees will develop action plans with measurable outcomes. They will meet regularly to address issues and discuss progress and a facilitator will be provided as needed. Subcommittee members will report their progress to the Advisory Council and, in turn, receive guidance/direction from the Advisory Council.

The Advisory Council voted on six of the seven emphasis areas. The seventh emphasis area - "Continuing Successful Safety Initiatives" was not considered for the voting exercise. This emphasis area is a compilation of individual and joint initiatives that are currently in place and working well. Therefore, it would be inappropriate to create a subcommittee to work on already successful initiatives.

Additionally, the theme strategy, "Develop a media subcommittee" was removed from the voting process. The Council members had already committed to developing a media and



marketing subcommittee thus it was unnecessary to include it in the voting process.

The priority theme strategies are described in each of the appropriate emphasis areas and are as follows:

- Improve traffic records
- Promote and implement road safety audits and road safety corridor and intersection programs
- Promote photo enforcement at intersections and/or signage of enforcement activities
- Implement school-based initiatives for safe mobility
- Driver education (including continuing education for all drivers and motorcycles)
- Issue-based targeted enforcement and education (including impaired driving and risky driver behavior)

### Keep Vehicles in the Proper Lane and Minimize the Effects of Leaving the Travel Lane

#### Background

Lane departure related crashes accounted for 518 fatal crashes, almost half of all the reported

fatal crashes within the State of Arizona in 2004, as illustrated in Figure 4. One of the most serious lane departure crashes is a "head-on collision" which occurs when a driver departs their travel lane and collides with an oncoming vehicle. Another lane departure crash that often results in fatalities and/or serious injuries is the "run-off-road" crash, where the driver loses control and the vehicle either collides with a fixed object or overturns. The target crashes are head-on (89), sideswipe (30), and run-off-road (417).

The primary objective of addressing lane departure crashes is to identify cost effective strategies that reduce unintentional lane departure, as well as alert the driver should a departure occur. The secondary objective is to assist the driver in returning to the travel lane safely and minimize the consequences of departure by improving clear zones along the roadside.

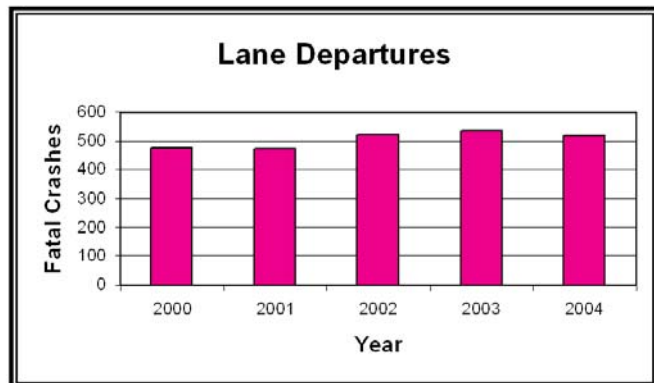


Figure 4 - Trends in Fatal Lane Departure Crashes

### Theme Strategy

The broad strategy for focusing on lane departure crashes will be to identify locations with significant crash history or the potential for drivers to unintentionally leave their travel lane by developing and implementing a comprehensive and coordinated initiative of 4 E's countermeasures. The theme strategy for this emphasis area is:

**Promote and implement road safety audits and road safety corridor and intersection programs**

*Supporting Council member agency strategies:*

- Identify locations with a disproportionately large number of crashes, such as: run-off-road and head-on crashes
- Improve traffic conditions in identified corridors and local jurisdictions by funding minor traffic engineering improvements, correcting signing deficiencies and promoting safety programs
- Work with ADOT and municipal street and transportation departments to review and identify infrastructure, traffic signals and sign improvements from a senior driver vantage point.
- Safety reviews of proposed Light Rail Transit and Bus Rapid Transit operations starting at the design stage.

## Improve Intersection Safety

### Background

There were 220 fatal crashes within Arizona in 2004 occurring at intersections. Rural intersections accounted for 52 crashes (24 percent), of which 10 were at signalized intersections, and 42 were at unsignalized intersections. Figure 5 highlights the trends in intersection crashes over the past 5 years. Urban intersections accounted for 168 fatal crashes (76 percent), of which 93 were signalized intersections, and 75 were unsignalized intersections. Intersection-related crashes accounted for 22 percent of Arizona's fatal crashes compared to 21 percent nationally.\*





Unsignalized urban intersections accounted for 3 percent of the nation's fatal crashes compared to 8 percent of Arizona's fatal crashes.\*

\* NCHRP Report 500, Volume 5, page I-2 based on FARS data

The collisions that primarily result in fatalities are right angle (125), left-turn (58), and pedestrian (22) collisions.

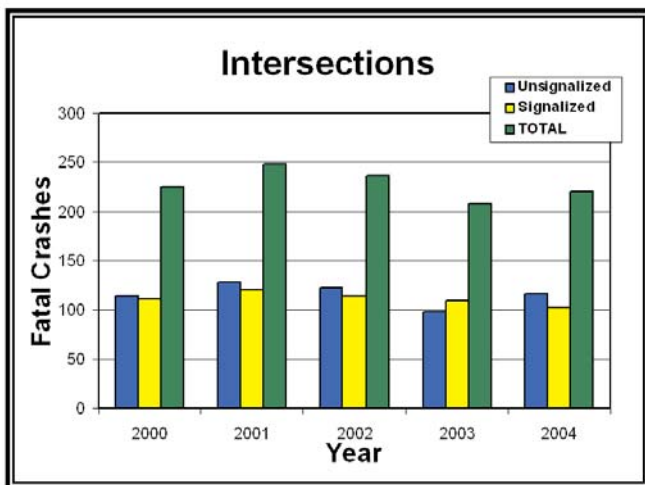


Figure 5 - Trends in Fatal Intersection Crashes

### Theme Strategies

The broad strategy for focusing on intersection crashes will be to identify locations with significant crash history or the potential for crashes by developing and implementing a comprehensive and coordinated initiative of 4 E's countermeasures. The theme strategies for this emphasis area are:

#### Promote and implement road safety audits and road safety corridor and intersection programs

*Supporting Council member agency strategies:*

- Participate in intersection safety audits through engineering and enforcement efforts.
- Identify intersections with a disproportionately large number of fatal and serious injuries crashes.

- To improve traffic conditions in identified corridors and local jurisdictions by funding minor traffic engineering improvements, correcting signing deficiencies and promoting safety programs.
- Work with ADOT and municipal street/transportation departments to review and identify infrastructure, traffic signals and sign improvements from a senior driver vantage point.
- Safety reviews of proposed Light Rail Transit and Bus Rapid Transit operations starting at the design stage.

#### Promote photo enforcement at intersections and/or signage of enforcement activities

### Improve Pedestrian and Bicyclist Safety

#### Background

Arizona ranks among the top five states with the highest pedestrian fatality rate. In 2004, there were 2.3 fatalities per 100,000 population while the national average was 1.67 fatalities per 100,000 population. Of the nation's cities with greater than 100,000 people, Phoenix ranked fifth in the number of pedestrian fatalities with 161 fatalities between 2002 and 2004.

In 2004, 138 lives were lost in 1,702 reported pedestrian crashes. Figure 6 shows the trends in fatalities for pedestrians and bicyclists over the last 5 years. Approximately one quarter of the pedestrians were intoxicated. Of the 138 lives, 85 were lost when crossing the roadway and 93 occurred in darkness. About 2.7 percent of all reported motor vehicle crashes in Arizona in 2004 included a pedestrian or bicyclist. Eight percent of pedestrian crashes were fatal and about 1.3 percent of bicyclist crashes were fatal.

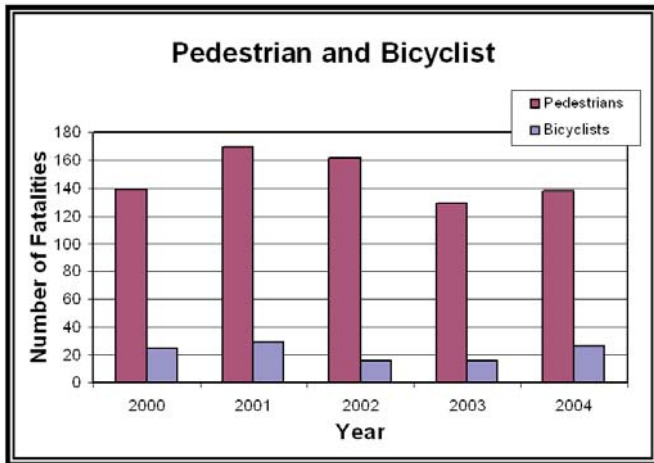


Figure 6 - Trends in Fatal Pedestrian and Bicyclist Crashes

### Theme Strategy

The broad strategy for focusing on pedestrian and bicycle crashes will be to identify locations with significant crash history or the potential for crashes by developing and implementing a comprehensive and coordinated initiative of 4 E's countermeasures. The theme strategy for this emphasis area is:

#### Implement school-based initiatives for safe mobility

*Supporting Council member agency strategies:*

- Improve safety on access routes to schools
- Develop strategies to support national initiative of "Safe Routes to School."
- Continue to promote and expand the adult school crossing guard program

### Modify Driver Behavior

#### Background

Addressing driver behavior is the most critical issue in reducing fatal and serious injury crashes. Of the 1,151 people killed in 2004, 868 motor vehicle occupants were killed, and of those 541 were not using a seatbelt or child restraint. (See Figure

7) Furthermore, in the 820 motor vehicle (non bike, motorcycle) fatal crashes, 197 drivers, or 20%, were alcohol impaired and 330 drivers (non motorcycle) were driving too fast or exceeding the speed limit. (See Figure 9)

The statistics also show that a large number of fatal crashes were due to the drivers' impaired condition - sleepy, fatigued (35) or under the influence of drugs (38) and driver errors such as failure to yield (128), disregard of traffic control (55), and inattention (40). Therefore, enforcement and education should be emphasized in the corresponding strategies.

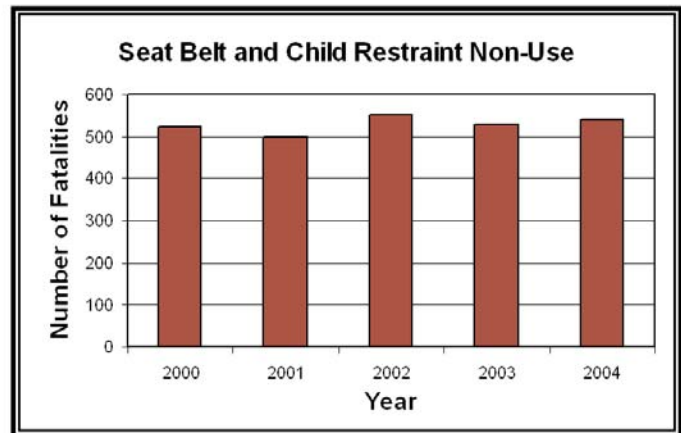


Figure 7 - Trends in Fatalities with Safety Devices Not in Use

**According to NHTSA,**

**"Safety belts, when used, reduce the risk of fatal injury to front seat passenger car occupants by 45%, and the risk of moderate to critical injury by 50%."**

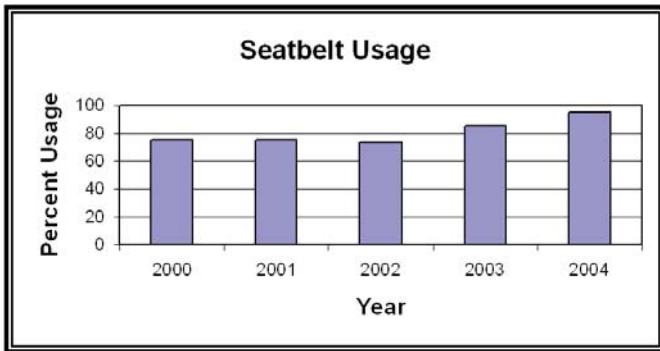


Figure 8 - Trends in Seat Belt Usage in Arizona

**Arizona law requires children under five to be properly secured in a child passenger restraint system.**

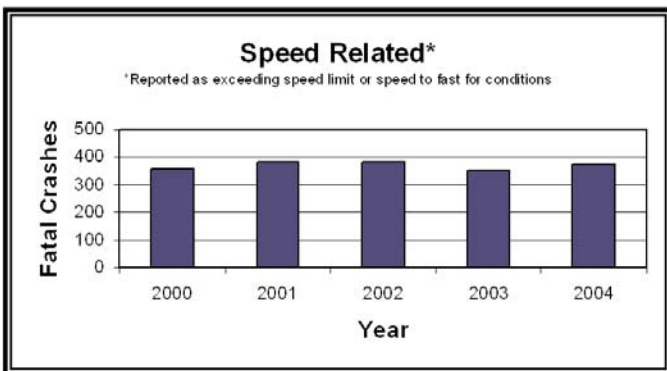


Figure 9 - Trend in Fatal Crashes with Speed as a Contributing Factor

**"The USDOT estimates that 67% of traffic fatalities are caused by Aggressive Drivers."**

### Theme Strategies

The broad strategy for focusing on driver behavior related crashes will be to identify locations with significant crash history and target populations involved in risky behavior by developing and implementing a comprehensive and coordinated initiative of 4 E's countermeasures. The theme strategies for this emphasis area are:

### Issue-based targeted enforcement and education (including impaired driving and risky driver behavior)

Supporting Council member agency strategies:

- Reduce traffic fatalities involving 15-20 yr olds drinking and drug impaired drivers.
- Reduce the availability of alcohol to those under 21.
- Delay the average age of drinking onset.
- Increase youth and adult understanding of the risks of underage drinking.
- Reduce traffic fatalities caused by 15-20 year old drinking drivers.
- Support the DUI Task Force efforts
- Support the DPS Certified Drug Recognition Expert (DRE's) Program. Aggressively enforce laws relating to drug impaired driving. DPS Officers continually provide DRE assistance to other law enforcement agencies and provide expert testimony in drug related trials.
- Promote efforts to reduce the number of crashes in which alcohol and/or drugs are primary contributing factors
- Support the DPS DUI/Special Enforcement Squad assigned to the Phoenix Metropolitan Freeway Area and deployed to selected areas of the city and county to enforce impaired driving laws.
- Reduce the number of crashes in which alcohol and/or drugs are primary contributing factors through education and enforcement
- Achieve and maintain compliance with traffic laws such as aggressive driving, speeding and redlight running. Enforcement must be consistent, impartial and uniformly applied to all street and highway users.
- Enforcement: DUI, speed, aggressive driving, and occupant restraint enforcement is the central goal of the Arizona Department of Public Safety Strategic plan.
- DUI Enforcement: The DPS DUI/Special Enforcement Squad is assigned to the Phoenix Metropolitan Freeway Area and deployed to selected areas of the city and county to enforce impaired driving laws.

## Driver Education (including continuing education for all drivers and motorcycles)

Supporting Council member agency strategies:

- Set in place standards recognized and implemented by all Driver and Safety Education learning institutions.
- Review of all driver educators' Continuing Education for updated teaching techniques
- Semi-annual conferences designed to update educators with current driver safety practices and procedures.
- Reinstitute driver education into schools as a mandatory class
- Develop Educational Classes
- Develop a safety flyer to be included with vehicle license and/or insurance renewals.
- Consider periodic testing of all drivers to take the emphasis off seniors. In Arizona, you can get a license at 18 and not have to renew it until age 65 - a period of 47 years.
- Continue to promote and expand the AAA Approved Driving School Network (ADSN), which offers classroom and behind-the-wheel driver training, using AAA curriculum and AAA certified instructors.
- Promote MVD website with Motorcycle Operator Manual and guides for safety riding.
- Promote GOHS website that will contain motorcycle safety information and a list of motorcycle riding schools.
- Partner with Motorcycle Safety Foundation to support defensive rider education programs through Arizona's Motorcycle Safety Fund Council, and working with them on their driver education campaign.
- Develop safety flyer to be distributed with motorcycle license and/or insurance renewal information.
- Strengthen driver training and licensing standards

**Promote photo enforcement at intersections and/or signage of enforcement activities**

## Modify Motorcyclist Behavior

### Background

Recent data indicates that deaths and injuries attributable to motorcycle crashes are becoming critical to our serious public health issues. In 2004, Arizona's 118 motorcycle fatalities were a 26 percent increase from 2003. The effect of a crash involving a motorcycle can be devastating. While 37 percent of passenger vehicle crashes result in injury or death, an astounding 83 percent of motorcycle crashes result in injury or death. Figure 10 illustrates the increasing trend in motorcycle fatalities.

According to National Highway Traffic Safety Administration's (NHTSA) National Occupant Protection Use Survey (NOPUS), a nationally representative observational survey of motorcycle helmet, safety belt, and child safety seat use, helmet use fell from 71 percent in 2000 to 58 percent in 2004. This drop is statistically significant and corresponds to a striking 45 percent increase in nonuse. And in Arizona 77 (65 percent) of the 118 motorcycle fatalities were not wearing helmets.

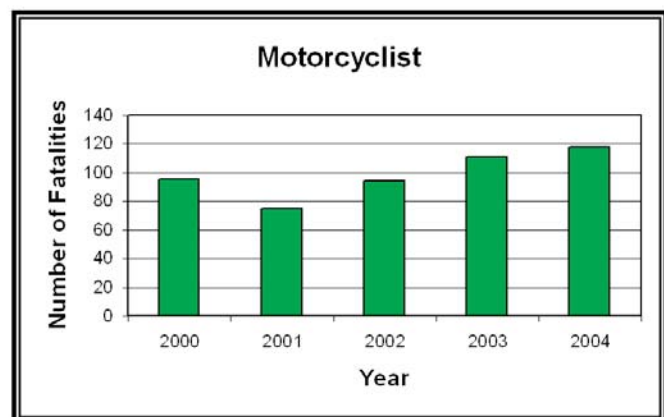


Figure 10 - Trend in Motorcycle Fatalities

**Arizona's 118 motorcycle fatalities were a 23 percent increase from 2003.**



## Theme Strategies

The broad strategy for focusing on motorcyclist behavior related crashes will be to identify locations with significant crash history and target populations involved in risky behavior by developing and implementing a comprehensive and coordinated initiative of 4 E's countermeasures. The theme strategies for this emphasis area are:

### **Issue-based targeted enforcement and education (including impaired driving and risky driver behavior)**

*Supporting Council member agency strategies:*

- Reduce traffic fatalities involving 15-20 yr olds drinking and drug impaired drivers.
- Reduce the availability of alcohol to those under 21.
- Delay the average age of drinking onset.
- Increase youth and adult understanding of the risks of underage drinking.
- Reduce traffic fatalities caused by 15-20 year old drinking drivers.
- Support the DUI Task Force efforts
- Support the DPS Certified Drug Recognition Expert (DRE's) Program. Aggressively enforce laws relating to drug impaired driving. DPS Officers continually provide DRE assistance to other law enforcement agencies and provide expert testimony in drug related trials.
- Promote efforts to reduce the number of crashes in which alcohol and/or drugs are primary contributing factors
- Support the DPS DUI/Special Enforcement Squad assigned to the Phoenix Metropolitan Freeway Area and deployed to selected areas of the city and county to enforce impaired driving laws.
- Reduce the number of crashes in which alcohol and/or drugs are primary contributing factors through education and enforcement
- Achieve and maintain compliance with traffic laws such as aggressive driving, speeding

and redlight running. Enforcement must be consistent, impartial and uniformly applied to all street and highway users.

- Enforcement: DUI, speed, aggressive driving, and occupant restraint enforcement is the central goal of the Arizona Department of Public Safety Strategic plan.
- DUI Enforcement: The DPS DUI/Special Enforcement Squad is assigned to the Phoenix Metropolitan Freeway Area and deployed to selected areas of the city and county to enforce impaired driving laws.

### **Driver Education (including continuing education for all drivers and motorcycles)**

*Supporting Council member agency strategies:*

- Set in place standards recognized and implemented by all Driver and Safety Education learning institutions.
- Review of all driver educators' Continuing Education for updated teaching techniques
- Semi-annual conferences designed to update educators with current driver safety practices and procedures.
- Reinstitute driver education into schools as a mandatory class
- Develop Educational Classes
- Develop a safety flyer to be included with vehicle license and/or insurance renewals.
- Consider periodic testing of all drivers to take the emphasis off seniors. In Arizona, you can get a license at 18 and not have to renew it until age 65 - a period of 47 years.
- Continue to promote and expand the AAA Approved Driving School Network (ADSN), which offers classroom and behind-the-wheel driver training, using AAA curriculum and AAA certified instructors.
- Promote MVD website with Motorcycle Operator Manual and guides for safety riding.
- Promote GOHS website that will contain motorcycle safety information and a list of motorcycle riding schools.

- Partner with Motorcycle Safety Foundation to support defensive rider education programs through Arizona's Motorcycle Safety Fund Council, and working with them on their driver education campaign.
- Develop safety flyer to be distributed with motorcycle license and/or insurance renewal information.
- Strengthen driver training and licensing standards

### **Promote photo enforcement at intersections and/or signage of enforcement activities**

## **Improving Data and Information for Decision Making**

### **Background**

Understanding and making optimal use of information technology is a critical challenge facing Arizona's transportation safety professionals. Knowing how, when, where and why traffic crashes have occurred is the foundation of a comprehensive traffic safety analysis system. Crash records, traffic volume, and road characteristic data must be available so proper decisions can be made and effective safety policies, programs, and projects can be developed and implemented.

Understanding and effectively using integrated traffic records containing all necessary data to plan and assess safety programs, as well as leverage critical resources, is highly needed to protect public safety. Systems currently in place must be assessed and improved to meet the needs of our safety professionals.

### **Theme Strategy**

The broad strategy for data and decision making will make timely, accurate crash data available to transportation professionals making decisions. The theme strategy for this emphasis area is:

### **Improve traffic records**

*Supporting Council member agency strategies:*

- Create Traffic Records Coordinating Committee
- Improve data collection, data quality, analysis processes, and systems including the connection between crash and roadway data and Computer Automated Dispatch.
- Complete ADOT research group's safety data sharing study
- Develop a comprehensive data processing system that brings together the engineering, enforcement, educational, medical, behavioral health, prosecution, judicial, correctional and emergency response disciplines.
- Develop a reliable and efficient method to assess the safety performance of the regional transportation system.
- Support FMCSA's State Safety Data Quality Analysis which evaluates the completeness, timeliness, accuracy and consistency of the State-reported crash and roadside inspection data in the Motor Carrier Management Information System.



## Continuing Successful Safety Initiatives

The State of Arizona has many ongoing successful safety initiatives underway that are contributing to the 0.9 percent per year decrease in the fatality rate. With increased cooperation between our partners and stakeholders the team will continue their thriving efforts in the areas of Impaired Driving, Child Restraints, Work Zone Safety, School Zones, Incident Management, Emergency Medical Services, Older Drivers, and Novice Drivers.

## Acknowledgements

The Executive Transportation Safety Team would not have been able to produce this document without the fine work of the Motor Vehicle Crash Statistics Unit of the Arizona Department of Transportation. We wish to express our thanks for providing all the data for this plan.



# Appendix A

## *Complete List Transportation Safety Strategies*



## Keeping Vehicles in the Proper Lane and Minimizing the Effects of Leaving the Travel Lane

### ENGINEERING

- Improved lighting, signage and delineation for older road users - MAG
- Improved lighting, signage and accessibility for physically handicapped users - MAG
- Roadway Safety (RS) - To improve traffic conditions in identified corridors and local jurisdictions by funding minor traffic engineering improvements, correcting signing deficiencies and promoting safety programs. - GOHS
- Work with ADOT and municipal street/transportation departments to review and identify infrastructure, traffic signals and sign improvements from a senior driver vantage point. - AAA of AZ
- Conduct focus groups with seniors to gauge their satisfaction with current driving alternatives and gather suggestions for improvement. - AAA of AZ
- Building a Tribal Traffic Safety Project which includes a funding guide of Federal traffic safety resources available to Tribes as well as the technical support necessary to assist tribal governments to identify hazardous highway locations, sections and elements; and to develop and prioritize projects. - ITCA
- Continuing the Tribal Highway Safety Improvement Project with a second phase that includes piloting the implementation of Highway Safety Improvement Programs with three tribal governments, nationally, to identify hazardous highway locations, sections and elements; and to develop and prioritize projects. - ITCA
- Incorporate safety into the planning process - ADOT



- Maintain Arizona Transportation Information System (ATIS) which contains road name, centerline location, and type stored in a GIS database - ADOT
- Continue to collect and maintain a database of traffic volume characteristics - ADOT
- Continue to collect and maintain a database of roadway characteristics - ADOT
- Continue to collect and maintain an electronic roadway video survey - ADOT
- Continue to maintain the Data Warehouse - ADOT
- Continue to support the Product Resource Investment Deployment and Evaluation (PRIDE) Program - ADOT
- Participate in National Safety Research - ADOT
- Continue Wildlife/Vehicle collision research - ADOT
- Continue to support real time ramp metering research - ADOT
- Improve snowplow headlight visibility and reduce driver fatigue research - ADOT
- Continued participation in the Arizona statewide safety project analysis model research - ADOT
- High risk crash site identification in Arizona - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Highway Safety Improvement Program and development of high crash listings - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT
- Railroad Safety Program - ADOT
- Installation of Shoulder and Centerline Rumble Strips - ADOT

- Traffic Signing - ADOT
- Pavement Marking (6" Striping) - ADOT
- Promoting the use of and Installing Reflectorized Raised Pavement Markers-ADOT
- Systematic use of Culvert Extensions-ADOT
- Systematic upgrades of guardrail end Treatment -ADOT
- Effective use of ADOT District Minor Funds to improve safety-ADOT
- Use of Turn Lanes-ADOT
- Roadway Shoulder Improvements-ADOT
- Continued use of Ramp Meters-ADOT
- Continued use of Freeway Cameras-ADOT
- Continued use of auxiliary lanes on freeways-ADOT
- Continued use of Variable Message Signs-ADOT
- Continued use of AZ511-ADOT
- Promotion and Continued use of Median Barriers-ADOT
- Continuation and expansion of Fixed Object Removal/Protection Program-ADOT
- Development of Motorcycle Skills Test Practice Guide-ADOT
- Promote the use of sidewalks-ADOT
- Promote the use of street lighting-ADOT
- Develop and Maintain Roadway Design Guide (Incorporates AASHTO Green Book)-ADOT
- Develop and Maintain policies, standards and guides for traffic engineering (Based on National Manual on Uniform Traffic Control Devices) - ADOT
- Plan to complete rumble strips on rural freeways by 9/30/2005. - FHWA
- Adopted 3R policy addressing safety by 9/30/2005. - FHWA

## EDUCATION

- Conduct focus groups with seniors to gauge their satisfaction with current driving alternatives and gather suggestions for improvement. - AAA of AZ
- Participate in building tribal traffic safety capacity research - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Evaluate and maintain Commercial Driver License Manual Chapter 10 - ADOT
- License Driving Schools - ADOT
- Carry out commercial vehicle inspections - ADOT
- Carry out non-commercial vehicle inspections - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT
- Continue Safety Emphasis through Local Technical Assistance Program
- Development of education campaigns to assist drivers in adverse weather (such as Know Snow in Arizona, Dust Storms, Snow



Safety/ Black Ice, Rain Campaigns)-ADOT

- Development of education campaigns focused on special road users (such as Bikes, Skateboards, In-line skates and Motor Scooters Campaign) - ADOT
- Development of education campaigns focused on proper driving maneuvers (Such as Yield and Turn Signals Campaign) - ADOT
- Promote the use of Seatbelts and Child Safety Seats and continue related campaigns - ADOT
- Continuation of Work Zone Safety Campaign - ADOT
- Continuation of Roundabouts Campaign - ADOT
- Continued and expanded use of the Road Weather Information System-ADOT
- Continued and expanded use of Regional Emergency Action Coordinating Team (REACT) -ADOT

## **ENFORCEMENT**

- Participate in building tribal traffic safety capacity research - ADOT
- Carry out commercial vehicle inspections - ADOT
- Carry out non-commercial vehicle inspections - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT

## **EMERGENCY MEDICAL SERVICES**

- Participate in building tribal traffic safety capacity research - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT

## **Improving Intersection Safety**

## **ENGINEERING**

- Incorporate safety into the planning process - ADOT
- Maintain Arizona Transportation Information System (ATIS) which contains road name,

centerline location, and type stored in a GIS database - ADOT

- Continue to collect and maintain a database of traffic volume characteristics - ADOT
- Continue to collect and maintain a database of roadway characteristics - ADOT
- Continue to collect and maintain an electronic roadway video survey - ADOT
- Continue to maintain the Data Warehouse - ADOT
- Continue to support the Product Resource Investment Deployment and Evaluation (PRIDE) Program - ADOT
- Participate in National Safety Research - ADOT
- Continue ITS Research regarding traffic signals and railroad Crossings - ADOT
- Improve snowplow headlight visibility and reduce driver fatigue research - ADOT
- Continued participation in the Arizona statewide safety project analysis model research - ADOT
- Continue right turn control at SPUI off-ramp research - ADOT
- High risk crash site identification in Arizona - ADOT
- High crash risk at unsignalized intersections - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Provide light rail transit state safety oversight - ADOT
- Provide Passenger Assistance Sensitivity Training - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT

- Highway Safety Improvement Program and development of high crash listings-ADOT
- Railroad Safety Program-ADOT
- Traffic Signing -ADOT
- Pavement Marking (6" Striping)-ADOT
- Promoting the use of and Installing Reflectorized Raised Pavement Markers-ADOT
- Effective use of ADOT District Minor Funds to improve safety-ADOT
- Use of Turn Lanes-ADOT
- Continued use of Ramp Meters-ADOT
- Continued use of Variable Message Signs-ADOT
- Continued use of AZ511-ADOT
- Continuation and expansion of Fixed Object Removal/Protection Program-ADOT
- Promote roundabout design-ADOT
- Development of Motorcycle Skills Test Practice Guide-ADOT
- Promote the use of sidewalks-ADOT
- Promote the use of street lighting-ADOT
- Develop and Maintain Roadway Design Guide (Incorporates AASHTO Green Book)-ADOT
- Develop and Maintain policies, standards and guides for traffic engineering (Based on National Manual on Uniform Traffic Control Devices) - ADOT
- Expansion and coordination of emergency service traffic signal preemption within the metropolitan area of Tucson. - PAG
- Building a Tribal Traffic Safety Project which includes a funding guide of Federal traffic safety resources available to Tribes as well as the technical support necessary to assist tribal governments to identify hazardous highway locations, sections and elements; and to develop and prioritize projects. - ITCA
- Continuing the Tribal Highway Safety Improvement Project with a second phase that includes piloting the implementation of Highway Safety Improvement Programs with three tribal governments, nationally, to identify hazardous highway locations, sections and elements; and to develop and prioritize

projects. - ITCA

- Conduct focus groups with seniors to gauge their satisfaction with current driving alternatives and gather suggestions for improvement. - AAA of AZ
- Work with ADOT and municipal street/transportation departments to review and identify infrastructure, traffic signals and sign improvements from a senior driver vantage point. - AAA of AZ
- Roadway Safety (RS) - To improve traffic conditions in identified corridors and local jurisdictions by funding minor traffic engineering improvements, correcting signing deficiencies and promoting safety programs. - GOHS
- Safe Communities and Community Traffic Safety Programs (SA/CTSP) - To coordinate the public and private entities in the county and local jurisdictions in order to identify and solve the highway safety problems in their communities. - GOHS
- Integration of safety in pedestrian and bicycle planning - MAG
- Reduce traffic accidents related to DUI, speeding, red-light running and the illegal passing of stopped school buses - MAG
- Improved lighting, signage and delineation for older road users - MAG
- Improved lighting, signage and accessibility for physically handicapped users - MAG
- Reduce severe intersection crashes - MAG
- Promote road safety audits for new and existing developments - MAG
- Implement intersection safety initiatives in Transportation Safety Plan during FY-2005. - FHWA

## EDUCATION

- Continue right turn control at SPUI off-ramp research - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT





- Evaluate and maintain Commercial Driver License Manual Chapter 10 - ADOT
- License Driving Schools - ADOT
- Carry out commercial vehicle inspections - ADOT
- Carry out non-commercial vehicle inspections - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Provide light rail transit state safety oversight - ADOT
- Provide Passenger Assistance Sensitivity Training - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT
- Continue Safety Emphasis Through Local Technical Assistance Program - ADOT
- Development of education campaigns to assist drivers in adverse weather (such as Know Snow in Arizona, Dust Storms, Snow Safety/ Black Ice, Rain Campaigns)-ADOT
- Development of education campaigns focused on special road users (such as Bikes, Skateboards, In-line skates and Motor Scooters Campaign) - ADOT
- Development of education campaigns focused on proper driving maneuvers (Such as Yield and Turn Signals Campaign) - ADOT
- Promote the use of Seatbelts and Child Safety Seats and continue related campaigns - ADOT
- Development of educational campaigns focused on proper pedestrian behavior (Such as Proper way to cross the street Campaign) - ADOT
- Continuation of Work Zone Safety Campaign - ADOT

- Continuation of Roundabouts Campaign - ADOT
- Continued and expanded use of the Road Weather Information System-ADOT
- Continued and expanded use of Regional Emergency Action Coordinating Team (REACT) -ADOT
- Expansion and coordination of emergency service traffic signal preemption within the metropolitan area of Tucson. - PAG
- Conduct focus groups with seniors to gauge their satisfaction with current driving alternatives and gather suggestions for improvement. - AAA of AZ
- Roadway Safety (RS) - To improve traffic conditions in identified corridors and local jurisdictions by funding minor traffic engineering improvements, correcting signing deficiencies and promoting safety programs. - GOHS
- Safe Communities and Community Traffic Safety Programs (SA/CTSP) - To coordinate the public and private entities in the county and local jurisdictions in order to identify and solve the highway safety problems in their communities. - GOHS
- Integration of safety in pedestrian and bicycle planning - MAG
- Reduce traffic accidents related to DUI, speeding, red-light running and the illegal passing of stopped school buses - MAG
- Reduce severe intersection crashes - MAG
- Implement intersection safety initiatives in Transportation Safety Plan during FY-2005. - FHWA

## ENFORCEMENT

- Participate in building tribal traffic safety capacity research - ADOT
- Carry out commercial vehicle inspections - ADOT

- Carry out non-commercial vehicle inspections - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT
- Expansion and coordination of emergency service traffic signal preemption within the metropolitan area of Tucson. - PAG
- Safe Communities and Community Traffic Safety Programs (SA/CTSP) - To coordinate the public and private entities in the county and local jurisdictions in order to identify and solve the highway safety problems in their communities. - GOHS
- Reduce traffic accidents related to DUI, speeding, red-light running and the illegal passing of stopped school buses - MAG
- Reduce severe intersection crashes - MAG
- Implement intersection safety initiatives in Transportation Safety Plan during FY-2005. - FHWA

## EMERGENCY MEDICAL SERVICES

- Participate in building tribal traffic safety capacity research - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT
- Expansion and coordination of emergency service traffic signal preemption within the metropolitan area of Tucson. - PAG
- Safe Communities and Community Traffic Safety Programs (SA/CTSP) - To coordinate the public and private entities in the county and local jurisdictions in order to identify and solve the highway safety problems in their communities. - GOHS
- Reduce severe intersection crashes - MAG
- Implement intersection safety initiatives in Transportation Safety Plan during FY-2005. - FHWA

## Improving Pedestrian and Bicyclist Safety

## ENGINEERING

- Incorporate safety into the planning process - ADOT
- Continue to collect and maintain a data-

base of roadway characteristics - ADOT

- Continue to collect and maintain an electronic roadway video survey - ADOT
- Continue to maintain the Data Warehouse - ADOT
- Continue to support the Product Resource Investment Deployment and Evaluation (PRIDE) Program - ADOT
- Participate in National Safety Research - ADOT
- Continue ITS Research regarding traffic signals and railroad Crossings - ADOT
- Continue driver license manual best practices research - ADOT
- Continue remedies for driver error research - ADOT
- Support comprehensive automated driver's license testing research - ADOT
- Continue right turn control at SPUI off-ramp research - ADOT
- High risk crash site identification in Arizona - ADOT
- High crash risk at unsignalized intersections - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Provide light rail transit state safety oversight - ADOT
- Provide Passenger Assistance Sensitivity Training - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT



- Highway Safety Improvement Program and development of high crash listings-ADOT
- Railroad Safety Program-ADOT
- Traffic Signing -ADOT
- Effective use of ADOT District Minor Funds to improve safety-ADOT
- Use of Turn Lanes-ADOT
- Roadway Shoulder Improvements-ADOT
- Continued use of Variable Message Signs-ADOT
- Continued use of AZ511-ADOT
- Continuation and expansion of Fixed Object Removal/Protection Program-ADOT
- Promote roundabout design-ADOT
- Promote the use of sidewalks-ADOT
- Promote the use of street lighting-ADOT
- Develop and Maintain Roadway Design Guide (Incorporates AASHTO Green Book)-ADOT
- Develop and Maintain policies, standards and guides for traffic engineering (Based on National Manual on Uniform Traffic Control Devices) - ADOT
- Coordinate Regional Bicycle Advisory Committee bicycle safety education activities and programs with Regional Transportation Safety Working Group to provide opportunities for funding or sharing of resources. - PAG
- Building a Tribal Traffic Safety Project which includes a funding guide of Federal traffic safety resources available to Tribes as well as the technical support necessary to assist tribal governments to identify hazardous highway locations, sections and elements; and to develop and prioritize projects. - ITCA
- Continuing the Tribal Highway Safety



Improvement Project with a second phase that includes piloting the implementation of Highway Safety Improvement Programs with three tribal governments, nationally, to identify hazardous highway locations, sections and elements; and to develop and prioritize projects. - ITCA

- Support sidewalk improvement programs in conjunction with capital improvement projects and stand-alone sidewalk improvements. - PAG
- Identify, design, and install crosswalks with traffic signals to improve pedestrian and bicycle safety and mobility throughout the PAG region. - PAG
- Safe Communities and Community Traffic Safety Programs (SA/CTSP) - To coordinate the public and private entities in the county and local jurisdictions in order to identify and solve the highway safety problems in their communities. - GOHS
- Motorcycle, Bicycle and Pedestrian Safety (MC/PS) - To increase the public's awareness and understanding of the participation in motorcycle, bicycle and pedestrian safety. - GOHS
- Safe multi-modal access - MAG
- Reduce mid-block pedestrian crashes - MAG
- Integration of safety in pedestrian and bicycle planning - MAG
- Improve safety on access routes to schools - MAG and PAG
- Reduce the number of crashes that involve bicyclists or pedestrians - MAG
- Improved lighting, signage and delineation for older road users - MAG
- Improved lighting, signage and accessibility for physically handicapped users - MAG
- Pedestrian safety plans developed by 9/30/2005. - FHWA

## EDUCATION

- Continue driver license manual best practices research - ADOT
- Continue remedies for driver error research - ADOT

- Support comprehensive automated driver's license testing research - ADOT
- Continue right turn control at SPUI off-ramp research - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Implement Graduated Drivers License - ADOT
- Evaluate Drivers License tests/ medical review - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Evaluate and maintain Commercial Driver License Manual Chapter 10 - ADOT
- License Driving Schools - ADOT
- Carry out commercial vehicle inspections - ADOT
- Carry out non-commercial vehicle inspections - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Provide light rail transit state safety oversight - ADOT
- Provide Passenger Assistance Sensitivity Training - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT
- Continue Safety Emphasis Through Local Technical Assistance Program



- Development of education campaigns to assist pedestrians in adverse weather (such as Dust Storms Campaigns)-ADOT
- Development of education campaigns focused on special road users (such as Bikes, Skateboards, In-line skates and Motor Scooters Campaign) - ADOT
- Area off Limits - ADOT
- Development of education campaigns focused on proper driving maneuvers (Such as Yield and Turn Signals Campaign) - ADOT
- Development of educational campaigns focused on proper pedestrian behavior (Such as Proper way to cross the street Campaign) - ADOT
- Continuation of Work Zone Safety Campaign - ADOT
- Continuation of Roundabouts Campaign - ADOT
- Continued and expanded use of the Road Weather Information System-ADOT
- Continued and expanded use of Regional Emergency Action Coordinating Team (REACT) -ADOT
- Coordinate Regional Bicycle Advisory Committee bicycle safety education activities and programs with Regional Transportation Safety Working Group to provide opportunities for funding or sharing of resources. - PAG
- Support sidewalk improvement programs in conjunction with capital improvement projects and stand-alone sidewalk improvements. - PAG
- Continue to promote and expand the adult school crossing guard program - AAA of AZ
- Safe Communities and Community Traffic Safety Programs (SA/CTSP) - To coordinate the public and private entities in the county and local jurisdictions in order to identify and solve the highway safety problems in their communities. - GOHS
- Motorcycle, Bicycle and Pedestrian Safety (MC/PS) - To increase the public's awareness and understanding of the participation in motorcycle, bicycle and pedestrian safety. - GOHS
- Safe multi-modal access - MAG



- Reduce mid-block pedestrian crashes - MAG
- Integration of safety in pedestrian and bicycle planning - MAG
- Improve safety on access routes to schools - MAG and PAG
- Reduce the number of crashes that involve bicyclists or pedestrians - MAG
- Pedestrian safety plans developed by 9/30/2005. - FHWA

## ENFORCEMENT

- Participate in building tribal traffic safety capacity research - ADOT
- Carry out commercial vehicle inspections - ADOT
- Carry out non-commercial vehicle inspections - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT
- Coordinate Regional Bicycle Advisory Committee bicycle safety education activities and programs with Regional Transportation Safety Working Group to provide opportunities for funding or sharing of resources. - PAG
- Continue to promote and expand the adult school crossing guard program - AAA of AZ
- Safe Communities and Community Traffic Safety Programs (SA/CTSP) - To coordinate the public and private entities in the county and local jurisdictions in order to identify and solve the highway safety problems in their communities. - GOHS
- Motorcycle, Bicycle and Pedestrian Safety (MC/PS) - To increase the public's awareness and understanding of the participation in motorcycle, bicycle and pedestrian safety. - GOHS
- Safe multi-modal access - MAG
- Reduce mid-block pedestrian crashes - MAG
- Improve safety on access routes to schools - MAG and PAG
- Reduce the number of crashes that involve bicyclists or pedestrians - MAG

- Pedestrian safety plans developed by 9/30/2005. - FHWA

## EMERGENCY MEDICAL SERVICES

- Participate in building tribal traffic safety capacity research - ADOT
- Promotion and Implementation of Road Safety Audits - ADOT
- Safe Communities and Community Traffic Safety Programs (SA/CTSP) - To coordinate the public and private entities in the county and local jurisdictions in order to identify and solve the highway safety problems in their communities. - GOHS
- Motorcycle, Bicycle and Pedestrian Safety (MC/PS) - To increase the public's awareness and understanding of the participation in motorcycle, bicycle and pedestrian safety. - GOHS
- Pedestrian safety plans developed by 9/30/2005. - FHWA

## Modifying Driver Behavior

## ENGINEERING

- Promotion and Implementation of Road Safety Audits - ADOT
- Highway Safety Improvement Program and development of high crash listings-ADOT
- Railroad Safety Program-ADOT
- Installation of Shoulder and Centerline Rumble Strips -ADOT
- Traffic Signing -ADOT
- Pavement Marking (6" Striping)-ADOT
- Promoting the use of and Installing Reflectorized Raised Pavement Markers-ADOT
- Systematic use of Culvert Extensions-ADOT
- Systematic upgrades of guardrail end Treatment -ADOT
- Effective use of ADOT District Minor Funds to improve safety-ADOT
- Use of Turn Lanes-ADOT
- Roadway Shoulder Improvements-ADOT

- Continued use of Ramp Meters-ADOT
- Continued use of Freeway Cameras-ADOT
- Continued use of auxiliary lanes on free-ways-ADOT
- Continued use of Variable Message Signs-ADOT
- Continued use of AZ511-ADOT
- Promotion and Continued use of Median Barriers-ADOT
- Continuation and expansion of Fixed Object Removal/Protection Program-ADOT
- Promote roundabout design-ADOT
- Promote the use of sidewalks-ADOT
- Promote the use of street lighting-ADOT
- Develop and Maintain Roadway Design Guide (Incorporates AASHTO Green Book)-ADOT
- Develop and Maintain policies, standards and guides for traffic engineering (Based on National Manual on Uniform Traffic Control Devices) - ADOT
- Participate in National Safety Research - ADOT
- ITS acceptance in elderly driving research - ADOT
- Continue to support real time ramp metering research - ADOT
- Improve snowplow headlight visibility and reduce driver fatigue research - ADOT
- Support research to evaluate the impact of driver education on safety - ADOT
- Continued participation in the Arizona statewide safety project analysis model research - ADOT
- Continue driver license manual best practices research - ADOT
- Continue remedies for driver error research - ADOT
- Support comprehensive automated driver's license testing research - ADOT
- Continue right turn control at SPUI off-ramp research - ADOT
- High risk crash site identification in Arizona - ADOT

- High crash risk at unsignalized intersections - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Evaluate Drivers License tests/ medical review - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Provide light rail transit state safety oversight - ADOT
- Provide Passenger Assistance Sensitivity Training - ADOT
- Arizona enacts primary seatbelt law. (Target is to increase current 86% usage to 90% + assuming a primary seat belt law.) - FHWA
- Improve the overall public awareness on key road safety issues - MAG
- Traffic Safety for Minors - After several years of forging coalitions only to experience legislative frustration promoting bills addressing single issues, we are considering the possibility of running an omnibus bill (The Traffic Safety for Minors Act of 2006). We feel such a strategy will bind traffic safety niche groups within a broad coalition and stimulate legislative deal making. - AAA of AZ

## EDUCATION

- Promotion and Implementation of Road Safety Audits - ADOT
- Continue Safety Emphasis Through Local Technical Assistance Program - ADOT
- Development of education campaigns to assist drivers in adverse weather (such as Know Snow in Arizona, Dust Storms, Snow Safety/ Black Ice, Rain Campaigns)-ADOT
- Development of education campaigns focused on proper driving maneuvers (Such as Yield and Turn Signals Campaign) - ADOT
- Promote the use of Seatbelts and Child Safety Seats and continue related campaigns - ADOT

- Continuation of Work Zone Safety Campaign - ADOT
- Continuation of Roundabouts Campaign - ADOT
- Continued and expanded use of the Road Weather Information System-ADOT
- Continued and expanded use of Regional Emergency Action Coordinating Team (REACT) -ADOT
- ITS acceptance in elderly driving research - ADOT
- Improve snowplow headlight visibility and reduce driver fatigue research - ADOT
- Support research to evaluate the impact of driver education on safety - ADOT
- Continue driver license manual best practices research - ADOT
- Continue remedies for driver error research - ADOT
- Support comprehensive automated driver's license testing research - ADOT
- Continue right turn control at SPUI off-ramp research - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Implement Graduated Drivers License - ADOT
- Evaluate Drivers License tests/ medical review - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Evaluate and maintain Commercial Driver License Manual Chapter 10 - ADOT
- License Driving Schools - ADOT
- Carry out commercial vehicle inspections - ADOT
- Carry out non-commercial vehicle inspections - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Provide light rail transit state safety oversight - ADOT
- Provide Passenger Assistance Sensitivity Training - ADOT
- Arizona enacts primary seatbelt law. (Target is to increase current 86% usage to 90% + assuming a primary seat belt law.) - FHWA
- Safety Belt Enforcement: States are strongly encouraged to promote greater seat belt usage among commercial motor vehicle drivers through enforcement, education and outreach activities. - FMCSA
- Improve lighting, signage and delineation for older road users - MAG
- Reduce traffic accidents related to DUI, speeding, red-light running and the illegal passing of stopped school buses - MAG
- Occupant Protection (OP) - To increase the statewide seat belt/child safety seat (CSS) usage rate of motor vehicle occupants and to increase public information and education of the benefits of seat belt/CSS usage for adults and children. - GOHS
- Police Traffic Services (PT) - To achieve and maintain compliance with traffic laws such as aggressive driving, speeding and red light running. Enforcement must be consistent, impartial and uniformly applied to all street and highway users. - GOHS
- Public Information and Education (PI&E) - The Safe and Sober Quarterly Planners are utilized to maximize the Arizona PI&E strategy which is based on major holidays. The PI&E Plan is divided into calendar quarters and a highway safety theme is developed for each quarter. Posters, brochures and promotional materials are distributed statewide. - GOHS
- Enforcement: DUI, speed, aggressive driving, and occupant restraint enforcement is the central goal of the Arizona Department of Public Safety Strategic plan. - DPS
- NHTSA Standardized Child Passenger Safety Technicians: The Department participates in multiple child passenger safety seat installations details with local public service agencies and the private sector throughout the state of Arizona. - DPS
- Public Information: The DPS Media Relations

Office coordinates media releases daily to the public regarding the Department's mission, and activities relating to DUI, speed, and occupant protection. District Commanders throughout the state contribute to the media releases by providing information to the local media venues regarding local activities. - DPS

- **DUI Enforcement:** The DPS DUI/Special Enforcement Squad is assigned to the Phoenix Metropolitan Freeway Area and deployed to selected areas of the city and county to enforce impaired driving laws. - DPS
- **Aggressive Driving:** DPS's Aggressive Driver Detail is the longest running in the country. It focuses both on enforcement and a strong media campaign. - DPS
- **Traffic Safety for Minors** - After several years of forging coalitions only to experience legislative frustration promoting bills addressing single issues, we are considering the possibility of running an omnibus bill (The Traffic Safety for Minors Act of 2006). We feel such a strategy will bind traffic safety niche groups within a broad coalition and stimulate legislative deal making. - AAA of AZ
- **Educational campaign** to stress self-responsibility for seniors to evaluate and refresh their driving skills, stay physically fit, and know when to give up the keys. - AAA of AZ
- **Provide a PC-based home screening tool** ("Roadwise Review") that seniors can use to evaluate their driving ability. AAA has distributed 70,000 CDs nationwide, 400 in Arizona. - AAA of AZ
- **Promote driver improvement and behind-the-wheel classes for seniors.** - AAA of AZ
- **Expand present partnership with Phoenix YMCA** to offer more "Fitness for Driving" exercise programs. - AAA of AZ
- **Research and determine the need for age-based testing to evaluate driving skills.** - AAA of AZ
- **Consider periodic testing of all drivers to take the emphasis off seniors.** In Arizona, you can get a license at 18 and not have to renew it until age 65 - a period of 47 years. - AAA of AZ
- **Continue to promote and expand the AAA**

Approved Driving School Network (ADSN), which offers classroom and behind-the-wheel driver training, using AAA curriculum and AAA certified instructors. - AAA of AZ

- **Tribal Safety Project** (support for 19 member Tribes of the Inter Tribal Council of Arizona) to increase community awareness of seat belt use and child passenger safety issues among the American Indian population residing on Indian lands in Arizona. - ITCA
- **Driver Training, Education and Licensing Program** to identify the need to reexamine the driver training and licensing program with consideration of more frequent renewal process to address poor driver knowledge and behavior as well as issues surrounding younger and older drivers. - PAG
- **Consolidation of individual agency Transportation Safety Education Programs** including the establishment of a multi-agency, multi-department transportation safety education clearinghouse. - PAG

## ENFORCEMENT

- **Promotion and Implementation of Road Safety Audits** - ADOT
- **Participate in building tribal traffic safety capacity research** - ADOT
- **Carry out commercial vehicle inspections** - ADOT
- **Carry out non-commercial vehicle inspections** - ADOT
- **Arizona enacts primary seatbelt law.** (Target is to increase current 86% usage to 90% + assuming a primary seat belt law.) - FHWA
- **Safety Belt Enforcement:** States are strongly encouraged to promote greater seat belt usage among commercial motor vehicle drivers through enforcement, education and outreach activities. - FMCSA
- **Reduce traffic accidents related to DUI, speeding, red-light running and the illegal passing of stopped school buses** - MAG
- **Alcohol and Other Drugs/Youth Enforcement (AL/YA)** - To reduce the number of crashes in which alcohol and/or drugs are primary contributing factors. - GOHS
- **Occupant Protection (OP)** - To increase the



statewide seat belt/child safety seat (CSS) usage rate of motor vehicle occupants and to increase public information and education of the benefits of seat belt/CSS usage



for adults and children. - GOHS

- Police Traffic Services (PT) - To achieve and maintain compliance with traffic laws such as aggressive driving, speeding and red light running. Enforcement must be consistent, impartial and uniformly applied to all street and highway users. - GOHS
- Enforcement: DUI, speed, aggressive driving, and occupant restraint enforcement is the central goal of the Arizona Department of Public Safety Strategic plan. - DPS
- DUI Enforcement: The DPS DUI/Special Enforcement Squad is assigned to the Phoenix Metropolitan Freeway Area and deployed to selected areas of the city and county to enforce impaired driving laws. - DPS
- Aggressive Driving: DPS's Aggressive Driver Detail is the longest running in the country. It focuses both on enforcement and a strong media campaign. - DPS
- Traffic Safety for Minors - After several years of forging coalitions only to experience legislative frustration promoting bills addressing single issues, we are considering the possibility of running an omnibus bill (The Traffic Safety for Minors Act of 2006). We feel such a strategy will bind traffic safety niche groups within a broad coalition and stimulate legislative deal making. - AAA of AZ
- Consider periodic testing of all drivers to

take the emphasis off seniors. In Arizona, you can get a license at 18 and not have to renew it until age 65 - a period of 47 years. - AAA of AZ

- Tribal Safety Project (support for 19 member Tribes of the Inter Tribal Council of Arizona) to increase community awareness of seat belt use and child passenger safety issues among the American Indian population residing on Indian lands in Arizona. - ITCA
- Driver Training, Education and Licensing Program to identify the need to reexamine the driver training and licensing program with consideration of more frequent renewal process to address poor driver knowledge and behavior as well as issues surrounding younger and older drivers. - PAG

## EMERGENCY MEDICAL SERVICES

- Promotion and Implementation of Road Safety Audits - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Arizona enacts primary seatbelt law. (Target is to increase current 86% usage to 90% + assuming a primary seat belt law.) - FHWA
- Traffic Safety for Minors - After several years of forging coalitions only to experience legislative frustration promoting bills addressing single issues, we are considering the possibility of running an omnibus bill (The Traffic Safety for Minors Act of 2006). We feel such a strategy will bind traffic safety niche groups within a broad coalition and stimulate legislative deal making. - AAA of AZ

## Modifying Motorcyclist Behavior

## ENGINEERING

- Promotion and Implementation of Road Safety Audits - ADOT
- Highway Safety Improvement Program and development of high crash listings-ADOT
- Railroad Safety Program-ADOT
- Installation of Shoulder and Centerline Rumble Strips -ADOT
- Traffic Signing -ADOT

- Pavement Marking (6" Striping)-ADOT
- Promoting the use of and Installing Reflectorized Raised Pavement Markers-ADOT
- Systematic use of Culvert Extensions-ADOT
- Systematic upgrades of guardrail end Treatment -ADOT
- Effective use of ADOT District Minor Funds to improve safety-ADOT
- Use of Turn Lanes-ADOT
- Roadway Shoulder Improvements-ADOT
- Continued use of Ramp Meters-ADOT
- Continued use of Freeway Cameras-ADOT
- Continued use of auxiliary lanes on free-ways-ADOT
- Continued use of Variable Message Signs-ADOT
- Continued use of AZ511-ADOT
- Continuation and expansion of Fixed Object Removal/Protection Program-ADOT
- Promote roundabout design-ADOT
- Development of Motorcycle Skills Test Practice Guide-ADOT
- Promote the use of sidewalks-ADOT
- Promote the use of street lighting-ADOT
- Develop and Maintain Roadway Design Guide (Incorporates AASHTO Green Book)-ADOT
- Develop and Maintain policies, standards and guides for traffic engineering (Based on National Manual on Uniform Traffic Control Devices) - ADOT
- Continue to support real time ramp metering research - ADOT
- Improve snowplow headlight visibility and reduce driver fatigue research - ADOT
- Participate in National Safety Research - ADOT
- Continued participation in the Arizona



- statewide safety project analysis model research - ADOT
- Continue driver license manual best practices research - ADOT
- Continue remedies for driver error research - ADOT
- Support comprehensive automated driver's license testing research - ADOT
- Continue right turn control at SPUI off-ramp research - ADOT
- High risk crash site identification in Arizona - ADOT
- High crash risk at unsignalized intersections - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Provide light rail transit state safety oversight - ADOT
- Provide Passenger Assistance Sensitivity Training - ADOT
- Participate in building tribal traffic safety capacity research - ADOT

## EDUCATION

- Promotion and Implementation of Road Safety Audits - ADOT
- Continue driver license manual best practices research - ADOT
- Continue remedies for driver error research - ADOT
- Support comprehensive automated driver's license testing research - ADOT
- Continue right turn control at SPUI off-ramp research - ADOT
- Implement Graduated Drivers License - ADOT
- Evaluate Drivers License tests/ medical

review - ADOT

- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Evaluate and maintain Commercial Driver License Manual Chapter 10 - ADOT
- License Driving Schools - ADOT
- Carry out commercial vehicle inspections - ADOT
- Carry out non-commercial vehicle inspections - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Provide light rail transit state safety oversight - ADOT
- Provide Passenger Assistance Sensitivity Training - ADOT
- Consolidation of individual agency Transportation Safety Education Programs including the establishment of a multi-agency, multi-department transportation safety education clearinghouse. - PAG
- Continue Safety Emphasis Through Local Technical Assistance Program - ADOT
- Development of education campaigns to assist drivers in adverse weather (such as Know Snow in Arizona, Dust Storms, Snow Safety/ Black Ice, Rain Campaigns)-ADOT
- Development of education campaigns focused on proper driving maneuvers (Such as Yield and Turn Signals Campaign) - ADOT
- Continuation of Work Zone Safety Campaign - ADOT
- Continuation of Roundabouts Campaign - ADOT
- Continued and expanded use of the Road Weather Information System-ADOT
- Continued and expanded use of Regional Emergency Action Coordinating Team (REACT) -ADOT
- Promotion and Continued use of Median Barriers-ADOT

- Participate in building tribal traffic safety capacity research - ADOT
- Strengthen driver training and licensing standards - MAG
- Educate the public on safe actions to take at road crash sites - MAG
- Alcohol and Other Drugs/Youth Enforcement (AL/YA) - To reduce the number of crashes in which alcohol and/or drugs are primary contributing factors. - GOHS
- Public Information and Education (PI&E) - The Safe and Sober Quarterly Planners are utilized to maximize the Arizona PI&E strategy which is based on major holidays. The PI&E Plan is divided into calendar quarters and a highway safety theme is developed for each quarter. Posters, brochures and promotional materials are distributed statewide. - GOHS
- Motorcycle, Bicycle and Pedestrian Safety (MC/PS) - To increase the public's awareness and understanding of the participation in motorcycle, bicycle and pedestrian safety. - GOHS
- Public Information: The DPS Media Relations Office coordinates media releases daily to the public regarding the Department's mission, and activities relating to DUI, speed, and occupant protection. District Commanders throughout the state contribute to the media releases by providing information to the local media venues regarding local activities. - DPS
- Driver Training, Education and Licensing Program to identify the need to reexamine the driver training and licensing program with consideration of more frequent renewal process to address poor driver knowledge and behavior as well as issues surrounding younger and older drivers. - PAG

## **ENFORCEMENT**

- Promotion and Implementation of Road Safety Audits - ADOT
- Police Traffic Services (PT) - To achieve and maintain compliance with traffic laws such as aggressive driving, speeding and red light running. Enforcement must be consistent, impartial and uniformly applied to all street

and highway users. - GOHS

- Enforcement: DUI, speed, aggressive driving, and occupant restraint enforcement is the central goal of the Arizona Department of Public Safety Strategic plan. - DPS
- DUI Enforcement: The DPS DUI/Special Enforcement Squad is assigned to the Phoenix Metropolitan Freeway Area and deployed to selected areas of the city and county to enforce impaired driving laws. - DPS
- Participate in building tribal traffic safety capacity research - ADOT

### **EMERGENCY MEDICAL SERVICES**

- Promotion and Implementation of Road Safety Audits - ADOT
- Participate in building tribal traffic safety capacity research - ADOT

### **Improving Data and Information for Decision Making**

### **ENGINEERING**

- Promotion and Implementation of Road Safety Audits - ADOT
- Continue Safety Emphasis Through Local Technical Assistance Program - ADOT
- Highway Safety Improvement Program and development of high crash listings-ADOT
- Railroad Safety Program-ADOT
- Installation of Shoulder and Centerline Rumble Strips -ADOT
- Traffic Signing -ADOT
- Pavement Marking (6" Striping)-ADOT
- Promoting the use of and Installing ReflectORIZED Raised Pavement Markers-ADOT
- Systematic use of Culvert Extensions-ADOT

- Systematic upgrades of guardrail end Treatment -ADOT
- Effective use of ADOT District Minor Funds to improve safety-ADOT
- Use of Turn Lanes-ADOT
- Roadway Shoulder Improvements-ADOT
- Continued use of Ramp Meters-ADOT
- Continued use of Freeway Cameras-ADOT
- Continued use of auxiliary lanes on free-ways-ADOT
- Continued use of Variable Message Signs-ADOT
- Continued use of AZ511-ADOT
- Promotion and Continued use of Median Barriers-ADOT
- Continuation and expansion of Fixed Object Removal/Protection Program-ADOT
- Promote roundabout design-ADOT
- Promote the use of sidewalks-ADOT
- Promote the use of street lighting-ADOT
- Develop and Maintain Roadway Design Guide (Incorporates AASHTO Green Book)-ADOT
- Develop and Maintain policies, standards and guides for traffic engineering (Based on National Manual on Uniform Traffic Control Devices) - ADOT
- Incorporate safety into the planning process - ADOT
- Maintain Arizona Transportation Information





System (ATIS) which contains road name, centerline location, and type stored in a GIS database - ADOT

- Continue to collect and maintain a database of traffic volume characteristics - ADOT
- Continue to collect and maintain a database of roadway characteristics - ADOT
- Continue to collect and maintain an electronic roadway video survey - ADOT
- Continue to maintain the Data Warehouse - ADOT
- Continue to support the Product Resource Investment Deployment and Evaluation (PRIDE) Program - ADOT
- Participate in National Safety Research - ADOT
- Continue in ITS Research regarding traffic signals and railroad Crossings - ADOT
- Continue Wildlife/Vehicle collision research - ADOT
- ITS acceptance in elderly driving research - ADOT
- Continue to support real time ramp metering research - ADOT
- Continued participation in the Arizona statewide safety project analysis model research - ADOT
- High risk crash site identification in Arizona - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- License Driving Schools - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Complete safety data sharing study by 9/30/05. - FHWA
- Complete comprehensive transportation safety plan by CY-2005. - FHWA

- Data Quality: The FMCSA's State Safety Data Quality Analysis evaluates the completeness, timeliness, accuracy and consistency of the State-reported crash and roadside inspection data in the Motor Carrier Management Information System. - FMCSA
- Develop a reliable and efficient method to assess the safety performance of the regional transportation system. - MAG
- Traffic Records (TR) - To develop a comprehensive data processing system that brings together the engineering, enforcement, educational, medical, behavioral health, prosecution, judicial, correctional and emergency response disciplines. - GOHS
- Building a Tribal Traffic Safety Project which includes a funding guide of Federal traffic safety resources available to Tribes as well as the technical support necessary to assist tribal governments to identify hazardous highway locations, sections and elements; and to develop and prioritize projects. - ITCA
- Continuing the Tribal Highway Safety Improvement Project with a second phase that includes piloting the implementation of Highway Safety Improvement Programs with three tribal governments, nationally, to identify hazardous highway locations, sections and elements; and to develop and prioritize projects. - ITCA
- Upgrade incident and emergency management communications, including the upgrade of interagency communications equipment and the associated protocols for incident and emergency response. - PAG
- Continue support of the ER Link (Tucson) project to establish two-way video and data capabilities between the ambulance, or helicopter, and the emergency room preparing to accept the patient. - PAG
- Consistency in the integration of safety into facility site design and land development (access management). Evaluate the development of a review process for safety features within facility designs and land development so that it is applied consistently. - PAG
- Develop a regional crash database system in the PAG metropolitan region that supports safety analysis efforts for the MPO and its member agencies. - PAG

- Coordination of jurisdictional transportation safety remediation programs to address more of the transportation safety problem areas identified through crash data analysis. Coordination of these programs on a regional scale could improve opportunities for funding. - PAG
- Improve the regional safety programming process and streamline funding application process for safety funds. - PAG



## EDUCATION

- Promotion and Implementation of Road Safety Audits - ADOT
- Continue Safety Emphasis Through Local Technical Assistance Program - ADOT
- Continued and expanded use of the Road Weather Information System-ADOT
- Continued and expanded use of Regional Emergency Action Coordinating Team (REACT) -ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Evaluate and maintain Commercial Driver License Manual Chapter 10 - ADOT
- Carry out commercial vehicle inspections - ADOT
- Carry out non-commercial vehicle inspections - ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT

- Participate in building tribal traffic safety capacity research - ADOT

## ENFORCEMENT

- Promotion and Implementation of Road Safety Audits - ADOT
- Compliance Reviews: A Compliance Review is an on-site visit of a motor carrier that reviews the compliance and safety management practices of a motor carrier. - FMCSA
- Passenger Carrier Inspections: Basic commercial motor vehicle inspection programs must include a greater number of passenger carrier inspections, particularly on conditionally-rated motor coach carriers, motor coach carriers with safety ratings over 5 years old and commercial passenger vans (carrying 9 to 15 people) operating in interstate commerce. - FMCSA
- Hazardous Materials Program: States that do not automatically adopt Federal regulations are encouraged to pass enabling legislation to enforce the new HM Safety Permit (HMSP) Regulations as soon as practicable. - FMCSA
- Electronic Verification of CDL Status: States must increase their scrutiny of all commercial motor vehicle drivers to ensure compliance with regulations, including conducting a CDL status check through the Commercial Drivers License Information System (CDLIS), the National Law Enforcement Telecommunications System (NLETS) or the State licensing agency during every inspection and taking appropriate enforcement action. - FMCSA
- Participate in building tribal traffic safety capacity research - ADOT

## EMERGENCY MEDICAL SERVICES

- Promotion and Implementation of Road Safety Audits - ADOT
- Maintain vehicle registration database - ADOT
- Maintain Drivers License Database - ADOT
- Participate in building tribal traffic safety capacity research - ADOT

## Continuing Successful Safety Initiatives

### ENGINEERING

- Promotion and Implementation of Road Safety Audits-ADOT
- Continuation of "Roadeo" for public transportation drivers-ADOT
- Highway Safety Improvement Program and development of high crash listings-ADOT
- Railroad Safety Program-ADOT
- Installation of Shoulder and Centerline Rumble Strips -ADOT
- Installation of Centerline rumble strips-ADOT
- Traffic Signing -ADOT
- Pavement Marking (6" Striping)-ADOT
- Promoting the use of and Installing Reflectorized Raised Pavement Markers-ADOT
- Systematic use of Culvert Extensions-ADOT
- Systematic upgrades of guardrail end Treatment -ADOT
- Promote the use of sidewalks-ADOT
- Promote the use of street lighting-ADOT
- Develop and Maintain Roadway Design Guide (Incorporates AASHTO Green Book)-ADOT
- Develop and Maintain policies, standards and guides for traffic engineering (Based on National Manual on Uniform Traffic Control Devices)
- Effective use of ADOT District Minor Funds to improve safety-ADOT
- Use of Turn Lanes-ADOT
- Roadway Shoulder Improvements-ADOT
- Continued use of Ramp Meters-ADOT
- Continued use of Freeway Cameras-ADOT
- Continued use of auxiliary lanes on free-ways-ADOT
- Continued use of Variable Message Signs-ADOT
- Promotion and Continued use of Median Barriers-ADOT
- Promotion and Implementation of Road Safety Audits-ADOT
- Continuation and expansion of Fixed Object Removal/Protection Program-ADOT
- Promote roundabout design-ADOT
- Continue Safety Emphasis Through Local Technical Assistance Program-ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Incorporate safety into the planning process - ADOT
- Maintain Arizona Transportation Information System (ATIS) which contains road name, centerline location, and type stored in a GIS database - ADOT
- Continue to collect and maintain a database of traffic volume characteristics - ADOT
- Continue to collect and maintain a database of roadway characteristics - ADOT
- Continue to collect and maintain an electronic roadway video survey - ADOT
- Continue to maintain the Data Warehouse - ADOT
- Continue to support the Product Resource Investment Deployment and Evaluation (PRIDE) Program - ADOT
- Continue Wildlife/Vehicle collision research - ADOT
- ITS acceptance in elderly driving research - ADOT
- Continue to support real time ramp metering research - ADOT
- Continued participation in the Arizona statewide safety project analysis model research - ADOT
- High risk crash site identification in Arizona - ADOT
- Participate in building tribal traffic safety capacity research - ADOT

- Achieve and sustain leadership commitment from key safety agency stakeholders (ADOT, DPS, GOHS, FMCSA, & NHTSA) towards continued development and implementation of a state-based comprehensive transportation safety plan (FY-2005 and beyond). -FHWA
- Goal No.2: Promote road safety audits for new and existing developments - MAG
- Expansion of the Pima County regional flood detection and warning system. - PAG

## EDUCATION

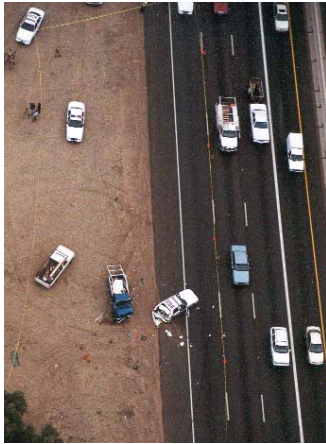
- Promotion and Implementation of Road Safety Audits-ADOT
- Continuation of "Roadeo" for public transportation drivers-ADOT
- Continued use of AZ511-ADOT
- Continued and expanded use of the Road Weather Information System-ADOT
- Continued and expanded use of Regional Emergency Action Coordinating Team (REACT) -ADOT
- Promotion and Implementation of Road Safety Audits-ADOT
- Development of Motorcycle Skills Test Practice Guide-ADOT
- Continue Safety Emphasis Through Local Technical Assistance Program
- Development of education campaigns to assist drivers in adverse weather (such as Know Snow in Arizona, Dust Storms, Snow Safety/ Black Ice, Rain Campaigns)-ADOT
- Development of education campaigns focused on special road users (such as Bikes, Skateboards, In-line skates and Motor Scooters Campaign)-ADOT
- Development of education campaigns focused on proper driving maneuvers (Such as Yield and Turn Signals Campaign)-ADOT
- Promote the use of Seatbelts and Child Safety Seats and continue related campaigns-ADOT
- Continuation of Work Zone Safety Campaign-ADOT
- Continuation of Roundabouts Campaign-ADOT
- Continue to collect and maintain Accident Location Identification and Surveillance System (ALISS) - ADOT
- Continue to collect and maintain Fatal Analysis Reporting System (FARS) - ADOT
- Evaluate and maintain Commercial Driver License Manual Chapter 10 - ADOT
- License Driving Schools - ADOT
- Carry out commercial vehicle inspections - ADOT
- Carry out non-commercial vehicle inspections - ADOT
- Evaluate and Maintain Drivers License Manual - ADOT
- Evaluate and Maintain Motorcycle Operators manual - ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Achieve and sustain leadership commitment from key safety agency stakeholders (ADOT, DPS, GOHS, FMCSA, & NHTSA) towards continued development and implementation of a state-based comprehensive transportation safety plan (FY-2005 and beyond). -FHWA



## ENFORCEMENT

- Promotion and Implementation of Road Safety Audits-ADOT
- Participate in building tribal traffic safety capacity research - ADOT





- Achieve and sustain leadership commitment from key safety agency stakeholders (ADOT, DPS, GOHS, FMCSA, & NHTSA) towards continued development and implementation of a state-based comprehensive transportation

safety plan (FY-2005 and beyond). -FHWA

- Partnerships between DPS and ADOT: The Highway Patrol Division Strategic Plan stipulates that each Bureau will attend an ADOT Partnering Meeting per quarter. In addition, each District Commander is required to attend an ADOT/MAG/FHA meeting per quarter. During these meetings DPS representatives are able to share information with transportation officials to develop highway safety plans directed at reducing injury and fatal collisions. - DPS

## EMERGENCY MEDICAL SERVICES

- Promotion and Implementation of Road Safety Audits-ADOT
- Participate in building tribal traffic safety capacity research - ADOT
- Achieve and sustain leadership commitment from key safety agency stakeholders (ADOT, DPS, GOHS, FMCSA, & NHTSA) towards continued development and implementation of a state-based comprehensive transportation safety plan (FY-2005 and beyond). -FHWA
- Continue to provide multiple agency traffic incident management training programs. - PAG
- Expansion of the roadway service patrol program (currently implemented as part of the interstate reconstruction projects) in the Tucson area. - PAG

## Other

### ENGINEERING

- Improve traffic safety in work zones - MAG
- Safety reviews of proposed Light Rail Transit and Bus Rapid Transit operations starting at the design stage - MAG

### EDUCATION

- Tire Safety Campaign: The DPS partnered with GOHS, the Rubber Manufacturers Association (RMA), AAA Arizona, and Scottsdale based Discount Tire Company to educate motorists about proper tire care and safety in 2004. - DPS
- Better utilization of available road safety funds- MAG

### ENFORCEMENT

- Performance Based Brake Testing Equipment (PBBT): FMCSA is supporting an initiative to use PBBT as an enforcement tool. To this end, FMCSA encourages States that do not use PBBT equipment to consider purchasing it; or, if a State already has PBBT equipment, to upgrade to operational status. - FMCSA
- Phlebotomy Program: Trained officer/phlebotomists draw blood on individuals arrested by DPS Officers. In addition, officers completed a significant volume of blood draws for other agencies. This program has allowed officers to obtain blood evidence on nearly every DUI arrest. - DPS
- Drug Recognition Expert Program: DPS Certified DRE's continue to aggressively enforce laws relating to drug impaired driving. DPS Officers continually provide DRE assistance to other law enforcement agencies and provide expert testimony in drug related trials. - DPS
- Aviation Section: The Aviation Section of the DPS assisted the Highway Patrol during speed enforcement/aggressive driver details with fixed-wing aircraft. - DPS
- Arizona Department of Public Safety Crime Lab: The Department's Crime Laboratory is

committed to testing blood and urine evidence submitted from Highway Patrol Officers for impaired driving cases. In addition the laboratory provides expert witnesses to give testimony relating to blood, urine, and breath testing evidence. - DPS

- Operation Safe and Security Trucks: The Commercial Vehicle Enforcement Bureau (CVEB) conducts multi-agency homeland security details. Operation Safe and Secure Trucks across Arizona involved officers from DPS as well as numerous local, county, and federal law enforcement agencies. Operations focus on conducting safety and security checks on commercial vehicles and drivers. - DPS
- Transportation security - MAG

#### **EMERGENCY MEDICAL SERVICES**

- Reduce the crash clearance time - MAG
- Emergency Medical Services (EM) - To continue to support rural providers with emergency medical services (EMS) equipment. - GOHS
- Reduce time to respond and clear crash sites - MAG